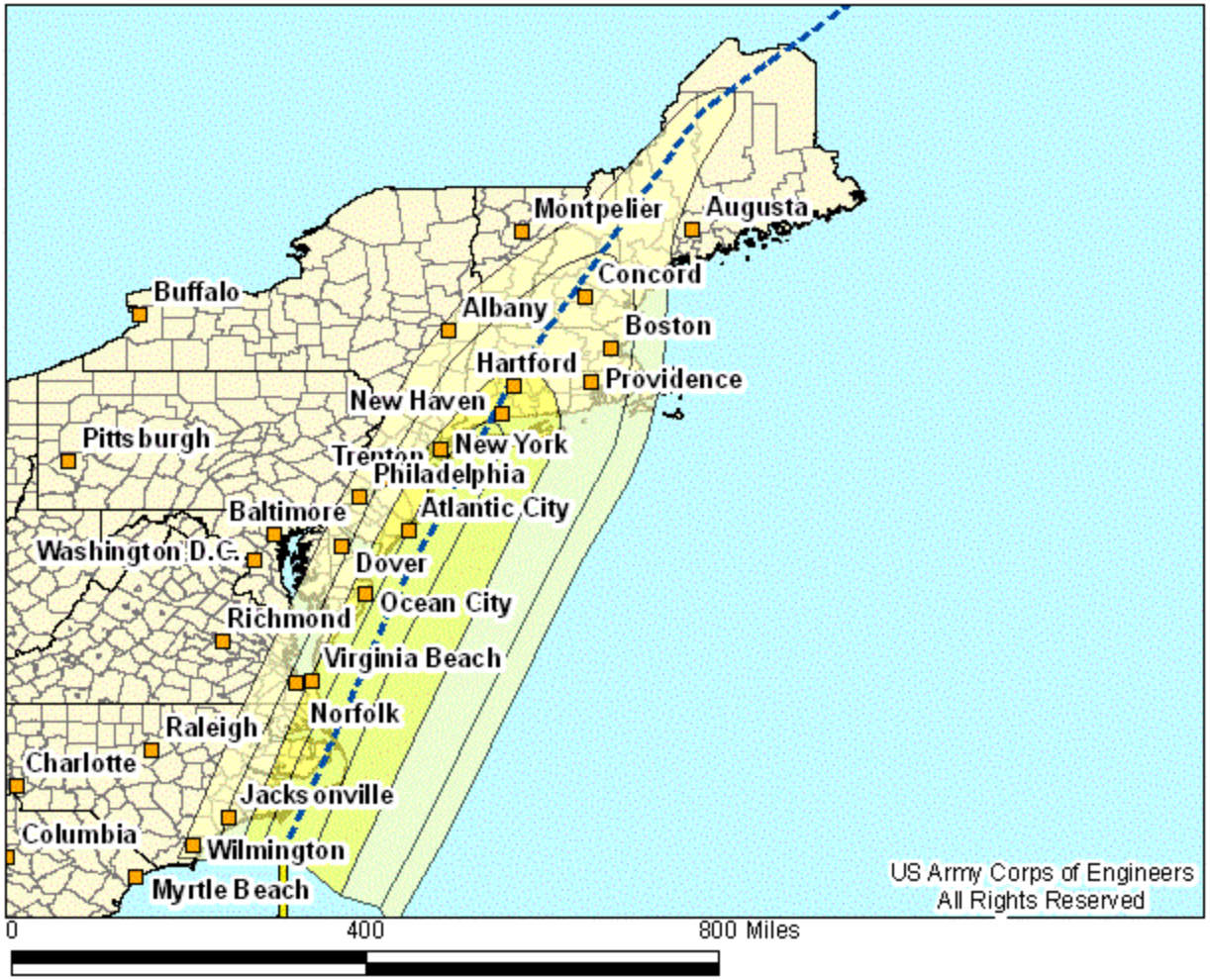
US Army Corps of Engineers

Hurricane Irene Projected Damage Areas

Landfall Expected In About 3 Hours

For Planning Purposes Only!



Post Landfall Projected Damage Areas

This model is based on a Category 1 storm making landfall near Outer Banks, NC.

Forecast Track

Historic Track

Projected Damage Areas

- CAT 0-type damage
- CAT 1-type damage
- CAT 2-type damage
- CAT 3-type damage
- CAT 4-type damage
- CAT 5-type damage

Information provided on this page displays a projected or actual Category 1 storm making landfall near Outer Banks, NC. These projections are based on information from the NHC (0500 EDT 08/27/2011) forecast and extrapolated by LRL staff to represent a landfall condition that has either occurred or may occur in the near future.

Details about this model may be obtained at http://www.englink.usace.army.mil or contact Louisville District staff at DLL-CELRL-GIS@usace.army.mil

Hurricane Irene Projected Damage Areas

Generated By:
Siemsen, LRL 0530 EDT 08/27/2011

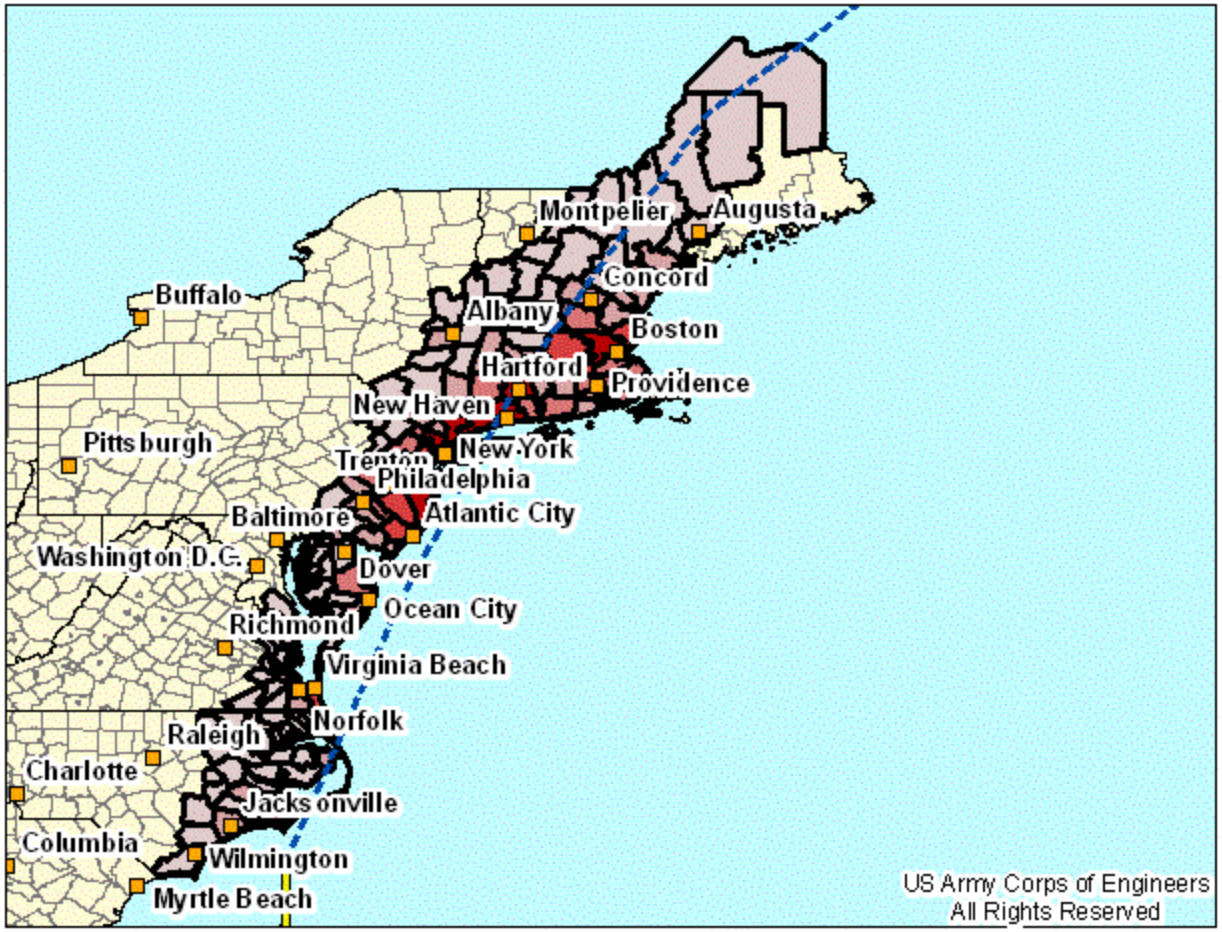
Sources:
HURREVAC
LRL-DEBRIS

US Army Corps of Engineers

Hurricane Irene Debris Model

Landfall Expected In About 3 Hours

For Planning Purposes Only!



Post Landfall Debris Model Results

New York - 15,867,000 Yards
New Jersey - 11,530,000 Yards
Connecticut - 5,332,000 Yards
Massachusetts - 4,762,000 Yards
Virginia - 1,921,000 Yards
Pennsylvania - 1,426,000 Yards
North Carolina - 1,334,000 Yards
New Hampshire - 1,169,000 Yards
Rhode Island - 815,000 Yards
Delaware - 599,000 Yards
Maryland - 325,000 Yards
Maine - 304,000 Yards
Vermont - 216,000 Yards

Model results per County on following page

This model is based on a Category 1 storm making landfall near Outer Banks, NC.

Forecast Track
Historic Track

Debris

- < 100,000 cubic yards
- 100,000 - 249,999 cubic yards
- 250,000 - 499,999 cubic yards
- 500,000 - 999,999 cubic yards
- >1,000,000 cubic yards

Information provided on this page displays a Category 1 storm making landfall near Outer Banks, NC. These projections are based on information from the NHC (0500 EDT 08/27/2011) forecast. The amount of debris forecasted is possible total volume, not necessarily the volume that may need to be removed with Federal funds, but does not include volume that may be covered by private insurance. Debris volume may include storm surge generated debris.

Details about this model may be obtained at http://www.englink.usace.army.mil
or contact Louisville District staff at DLL-CELRL-GIS@usace.army.mil

Hurricane Irene Debris Model

Generated By:
Siemsen, LRL 0530 EDT 08/27/2011

Sources:
HURREVAC
LRL-DEBRIS

US Army Corps of Engineers

Hurricane Irene Debris Model

Landfall Expected In About 3 Hours

For Planning Purposes Only!

State	Yards per State	County	Yards per County
Connecticut		Fairfield County	1,373,000
		Hartford County	1,315,000
		Litchfield County	304,000
		Middlesex County	343,000
		New Haven County	1,278,000
		New London County	378,000
		Tolland County	221,000
		Windham County	120,000
Connecticut	5,332,000		
Delaware		Kent County	80,000
		New Castle County	198,000
		Sussex County	321,000
Delaware	599,000		
Maine		Androscoggin County	41,000
		Aroostook County	< 1,000
		Cumberland County	106,000
		Franklin County	15,000
		Kennebec County	2,000
		Oxford County	28,000
		Piscataquis County	< 1,000
		Somerset County	5,000
		York County	107,000
Maine	304,000		
Maryland		Caroline County	17,000
		Cecil County	< 1,000
		Dorchester County	21,000
		Kent County	2,000
		Queen Anne's County	4,000

State	Yards per State	County	Yards per County
Maryland		Somerset County	26,000
(continued)		St. Mary's County	8,000
		Talbot County	15,000
		Wicomico County	100,000
		Worcester County	132,000
Maryland	325,000		
Massachusetts		Barnstable County	48,000
		Berkshire County	121,000
		Bristol County	415,000
		Dukes County	9,000
		Essex County	531,000
		Franklin County	69,000
		Hampden County	442,000
		Hampshire County	116,000
		Middlesex County	1,089,000
		Norfolk County	494,000
		Plymouth County	316,000
		Suffolk County	441,000
		Worcester County	671,000
Massachusetts	4,762,000		
New Hampshire		Belknap County	65,000
		Carroll County	63,000
		Cheshire County	80,000
		Coos County	26,000
		Grafton County	84,000
		Hillsborough County	311,000
		Merrimack County	148,000

The amount of debris forecasted is possible total volume, not necessarily the volume that may need to be removed with Federal funds, but does not include volume that may be covered by private insurance. Debris volume may include storm surge generated debris.

Details about this model may be obtained at http://www.englink.usace.army.mil or contact Louisville District staff at DLL-CELRL-GIS@usace.army.mil

Source: US Army Corps of Engineers, All Rights Reserved

Hurricane Irene Debris Model

Generated By:
Siemsen, LRL 0530 EDT 08/27/2011

Sources:
HURREVAC
LRL-DEBRIS

Hurricane Irene Debris Model

Landfall Expected In About 3 Hours

For Planning Purposes Only!

State	Yards per State	County	Yards per County
New Hampshire		Rockingham County	247,000
(continued)		Strafford County	102,000
		Sullivan County	43,000
New Hampshire	1,169,000		
New Jersey		Atlantic County	615,000
		Bergen County	1,254,000
		Burlington County	516,000
		Camden County	448,000
		Cape May County	222,000
		Cumberland County	157,000
		Essex County	696,000
		Gloucester County	226,000
		Hudson County	874,000
		Hunterdon County	67,000
		Mercer County	357,000
		Middlesex County	978,000
		Monmouth County	1,513,000
		Morris County	411,000
		Ocean County	1,731,000
		Passaic County	433,000
		Salem County	42,000
		Somerset County	327,000
		Sussex County	74,000
		Union County	552,000
		Warren County	37,000
New Jersey	11,530,000		
New York		Albany County	132,000
		Bronx County	971,000
		Columbia County	42,000

State	Yards per State	County	Yards per County
New York		Dutchess County	217,000
(continued)		Greene County	24,000
		Kings County	2,355,000
		Nassau County	2,825,000
		New York County	1,103,000
		Orange County	204,000
		Putnam County	80,000
		Queens County	2,527,000
		Rensselaer County	74,000
		Richmond County	683,000
		Rockland County	203,000
		Saratoga County	33,000
		Schenectady County	2,000
		Suffolk County	3,173,000
		Sullivan County	10,000
		Ulster County	100,000
		Washington County	15,000
		Westchester County	1,094,000
New York	15,867,000		
North Carolina		Beaufort County	65,000
		Bertie County	21,000
		Brunswick County	22,000
		Camden County	23,000
		Carteret County	174,000
		Chowan County	18,000
		Craven County	140,000
		Currituck County	65,000
		Dare County	132,000

The amount of debris forecasted is possible total volume, not necessarily the volume that may need to be removed with Federal funds, but does not include volume that may be covered by private insurance. Debris volume may include storm surge generated debris.

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Source: US Army Corps of Engineers, All Rights Reserved

Hurricane Irene Debris Model

Generated By:
Siemsen, LRL 0530 EDT 08/27/2011

Sources:
HURREVAC
LRL-DEBRIS

US Army Corps of Engineers

Hurricane Irene Debris Model

Landfall Expected In About 3 Hours

For Planning Purposes Only!

State	Yards per State	County	Yards per County
North Carolina		Duplin County	9,000
(continued)		Edgecombe County	< 1,000
		Gates County	11,000
		Greene County	3,000
		Halifax County	< 1,000
		Hertford County	16,000
		Hyde County	32,000
		Jones County	13,000
		Lenoir County	27,000
		Martin County	16,000
		New Hanover County	123,000
		Northampton County	2,000
		Onslow County	130,000
		Pamlico County	33,000
		Pasquotank County	83,000
		Pender County	32,000
		Perquimans County	21,000
		Pitt County	79,000
		Tyrrell County	20,000
		Washington County	24,000
North Carolina	1,334,000		
Pennsylvania		Bucks County	335,000
		Chester County	26,000
		Delaware County	217,000
		Montgomery County	246,000
		Philadelphia County	600,000
		Pike County	2,000
Pennsylvania	1,426,000		
Rhode Island		Bristol County	46,000
Rhode Island		Kent County	141,000
(continued)		Newport County	72,000
		Providence County	448,000
		Washington County	108,000
Rhode Island	815,000		
Vermont		Bennington County	30,000
		Caledonia County	2,000
		Essex County	2,000
		Orange County	15,000
		Rutland County	31,000
		Windham County	79,000
		Windsor County	57,000
Vermont	216,000		
Virginia		Accomack County	76,000
		Chesapeake city	234,000
		Franklin city	6,000
		Gloucester County	28,000
		Hampton city	118,000
		Isle of Wight County	23,000
		James City County	34,000
		King and Queen County	< 1,000
		Lancaster County	9,000
		Mathews County	7,000
		Middlesex County	7,000
		Newport News city	141,000
		Norfolk city	251,000
		Northampton County	16,000

The amount of debris forecasted is possible total volume, not necessarily the volume that may need to be removed with Federal funds, but does not include volume that may be covered by private insurance. Debris volume may include storm surge generated debris.

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Source: US Army Corps of Engineers, All Rights Reserved

Hurricane Irene Debris Model

Generated By:
Siemsen, LRL 0530 EDT 08/27/2011

Sources:
HURREVAC
LRL-DEBRIS

US Army Corps of Engineers

Hurricane Irene Debris Model

Landfall Expected In About 3 Hours

For Planning Purposes Only!

State	Yards per State	County	Yards per County
Virginia		Northumberland County	7,000
(continued)		Poquoson city	7,000
		Portsmouth city	140,000
		Richmond County	< 1,000
		Southampton County	7,000
		Suffolk city	53,000
		Surry County	4,000
		Sussex County	< 1,000
		Virginia Beach city	713,000
		Williamsburg city	7,000
		York County	33,000
Virginia	1,921,000		

The amount of debris forecasted is possible total volume, not necessarily the volume that may need to be removed with Federal funds, but does not include volume that may be covered by private insurance. Debris volume may include storm surge generated debris.

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Source: US Army Corps of Engineers, All Rights Reserved

Hurricane Irene Debris Model

Generated By:
Siemsen, LRL 0530 EDT 08/27/2011

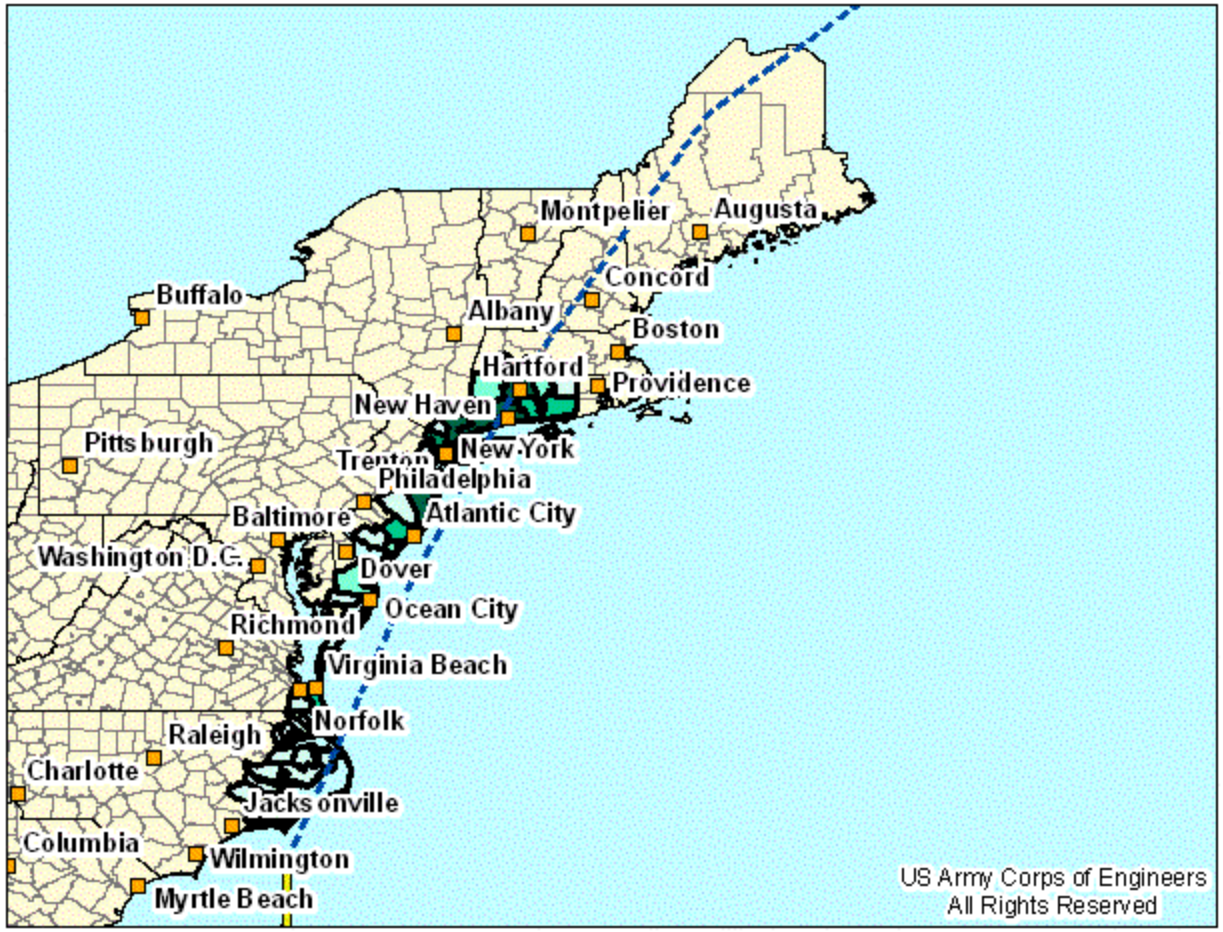
Sources:
HURREVAC
LRL-DEBRIS

US Army Corps of Engineers

Hurricane Irene Commodities Model

Landfall Expected In About **3** Hours

For Planning Purposes Only!



Post Landfall Water Model Results

Day One / Day Two / Day Three

New York – 210/425/850 Truckloads
Connecticut – 60/115/235 Truckloads
New Jersey – 50/100/201 Truckloads
North Carolina – 6/11/22 Truckloads
Virginia – 6/11/21 Truckloads
Massachusetts – 2/4/8 Truckloads
Delaware – 2/3/6 Truckloads
Maryland – 1/2/4 Truckloads

Model results per County on following page

This model is based on a Category 1 storm making landfall near Outer Banks, NC.

Forecast Track
Historic Track

Commodities

- < 5 Trucks Each
- 5 - 10 Trucks Each
- 11 - 20 Trucks Each
- 21 - 40 Trucks Each
- > 40 Trucks Each

Information provided on this page displays a Category 1 storm making landfall near Outer Banks, NC. These projections are based on information from the NHC ***(0500 EDT 08/27/2011)*** forecast. The amount of commodities forecasted is based on Mission Guide Book requirements and SME input. The graphic represents daily needs with a ramp-up in the distribution system – three days for Points of Distribution (PODs) to be fully in place and operational. Volume shown is for each commodity – water and ice. Commodity need may be supplied by multiple agencies and/or sources.

Details about this model may be obtained at http://www.englink.usace.army.mil
or contact Louisville District staff at DLL-CELRL-GIS@usace.army.mil

Hurricane Irene Commodities Model

Generated By:
Siemsen, LRL 0530 EDT 08/27/2011

Sources:
HURREVAC
LRL-DEBRIS

US Army Corps of Engineers

Hurricane Irene Commodities Model

Landfall Expected In About 3 Hours

For Planning Purposes Only!

State	Truckloads per State	County	Truckloads per County
Connecticut		Fairfield County	64
		Hartford County	62
		Litchfield County	10
		Middlesex County	12
		New Haven County	60
		New London County	15
		Tolland County	10
		Windham County	2
Connecticut	235		
Delaware		Sussex County	6
Delaware	6		
Maryland		Wicomico County	1
		Worcester County	3
Maryland	4		
Massachusetts		Hampden County	8
Massachusetts	8		
New Jersey		Atlantic County	18
		Bergen County	23
		Burlington County	3
		Cape May County	7
		Cumberland County	1
		Essex County	3
		Hudson County	41
		Middlesex County	15
		Monmouth County	45
		Ocean County	41
		Union County	4

State	Truckloads per State	County	Truckloads per County
New Jersey	201		
(continued)			
New York		Bronx County	98
		Kings County	179
		Nassau County	96
		New York County	114
		Putnam County	1
		Queens County	165
		Richmond County	35
		Rockland County	1
		Suffolk County	107
		Westchester County	54
New York	850		
North Carolina		Beaufort County	1
		Camden County	1
		Carteret County	4
		Chowan County	1
		Craven County	2
		Currituck County	2
		Dare County	3
		Hyde County	1
		Pamlico County	1
		Pasquotank County	3
		Perquimans County	1
		Tyrrell County	1
		Washington County	1
North Carolina	22		

Source: US Army Corps of Engineers, All Rights Reserved

The amount of commodities forecasted is based on Mission Guide Book requirements and SME input and the above table indicates suggested daily needs based on full deployment of a commodities distribution system. Volume shown is for each commodity – water and ice. Commodity need may be supplied by multiple agencies and/or sources.

Details about this model may be obtained at http://www.englink.usace.army.mil or contact Louisville District staff at DLL-CELRL-GIS@usace.army.mil

Hurricane Irene Commodities Model

Generated By:
Siemsen, LRL 0530 EDT 08/27/2011

Sources:
HURREVAC
LRL-DEBRIS

US Army Corps of Engineers

Hurricane Irene Commodities Model

Landfall Expected In About 3 Hours

For Planning Purposes Only!

State	Truckloads per State	County	Truckloads per County
Virginia		Accomack County	2
		Chesapeake city	1
		Northampton County	1
		Virginia Beach city	17
Virginia	21		

Source: US Army Corps of Engineers, All Rights Reserved

The amount of commodities forecasted is based on Mission Guide Book requirements and SME input and the above table indicates suggested daily needs based on full deployment of a commodities distribution system. Volume shown is for each commodity – water and ice. Commodity need may be supplied by multiple agencies and/or sources.

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Hurricane Irene Commodities Model

Generated By:
Siemsen, LRL 0530 EDT 08/27/2011

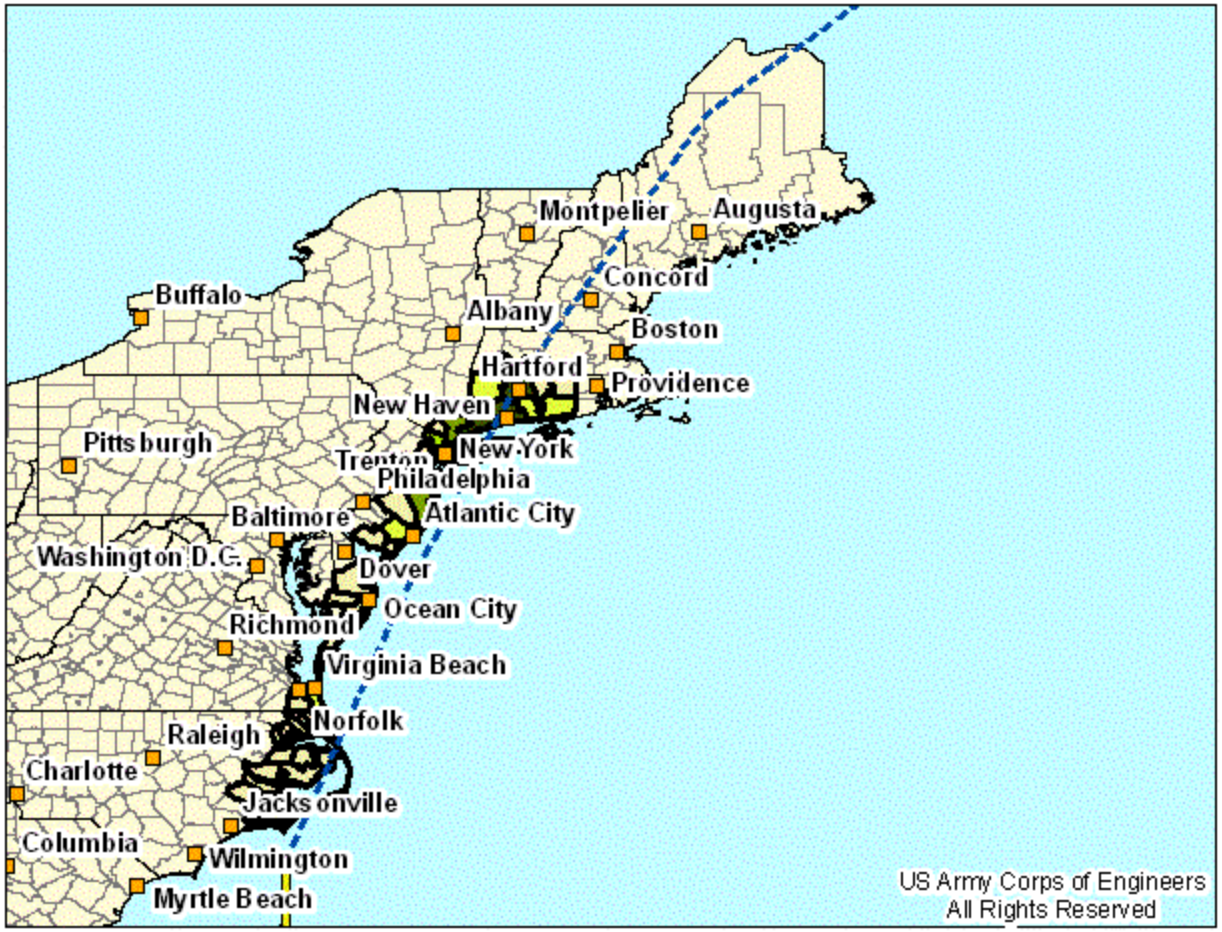
Sources:
HURREVAC
LRL-DEBRIS

US Army Corps of Engineers

Hurricane Irene Temporary Roofing Model

Landfall Expected In About 3 Hours

For Planning Purposes Only!



Post Landfall Temporary Roofing Model Results

New York - 99,100
Connecticut - 45,400
New Jersey - 37,000
Virginia - 4,200
North Carolina - 3,900
Massachusetts - 1,600
Delaware - 1,100
Maryland - 1,000

Model results per County on following page

This model is based on a Category 1 storm making landfall near Outer Banks, NC.

Forecast Track
Historic Track

Temporary Roofing

- < 2,000 units
- 2,000 - 3,999 units
- 4,000 - 5,999 units
- 6,000 - 9,999 units
- > 10,000 units

Information provided on this page displays a Category 1 storm making landfall near Outer Banks, NC. These projections are based on information from the NHC (0500 EDT 08/27/2011) forecast. Temporary roofing is based on 5% in CAT 1.

Details about this model may be obtained at http://www.englink.usace.army.mil
or contact Louisville District staff at DLL-CELRL-GIS@usace.army.mil

Hurricane Irene Roofing Model	
Generated By: Siemsen, LRL 0530 EDT 08/27/2011	
Sources: HURREVAC LRL-DEBRIS	Page 10 of 27

Hurricane Irene Temporary Roofing Model

Landfall Expected In About 3 Hours

For Planning Purposes Only!

State	House Units per State	County	House Units per County
Connecticut		Fairfield County	12,100
		Hartford County	11,600
		Litchfield County	2,200
		Middlesex County	2,600
		New Haven County	11,500
		New London County	3,000
		Tolland County	2,000
		Windham County	400
Connecticut	45,400		
Delaware		Sussex County	1,100
Delaware	1,100		
Maryland		Wicomico County	< 100
		Worcester County	1,000
Maryland	1,000		
Massachusetts		Hampden County	1,600
Massachusetts	1,600		
New Jersey		Atlantic County	3,400
		Bergen County	4,500
		Burlington County	500
		Cape May County	1,600
		Cumberland County	< 100
		Essex County	400
		Hudson County	4,200
		Middlesex County	2,700
		Monmouth County	9,100
		Ocean County	10,000
		Union County	600

State	House Units per State	County	House Units per County
New Jersey	37,000		
(continued)			
New York		Bronx County	4,600
		Kings County	15,000
		Nassau County	19,900
		New York County	800
		Putnam County	< 100
		Queens County	20,900
		Richmond County	7,200
		Rockland County	< 100
		Suffolk County	22,300
		Westchester County	8,400
New York	99,100		
North Carolina		Beaufort County	< 100
		Camden County	200
		Carteret County	1,200
		Chowan County	< 100
		Craven County	300
		Currituck County	500
		Dare County	800
		Hyde County	< 100
		Pamlico County	200
		Pasquotank County	700
		Perquimans County	< 100
		Tyrrell County	< 100
		Washington County	< 100
North Carolina	3,900		

Temporary roofing is based on 5% in CAT 1.

Details about this model may be obtained at http://www.englink.usace.army.mil
or contact Louisville District staff at DLL-CELRL-GIS@usace.army.mil

Source: US Army Corps of Engineers, All Rights Reserved

Hurricane Irene Roofing Model

Generated By:
Siemsen, LRL 0530 EDT 08/27/2011

Sources:
HURREVAC
LRL-DEBRIS

US Army Corps of Engineers

Hurricane Irene Temporary Roofing Model

Landfall Expected In About 3 Hours

For Planning Purposes Only!

State	House Units per State	County	House Units per County
Virginia		Accomack County	500
		Chesapeake city	200
		Northampton County	< 100
		Virginia Beach city	3,500
Virginia	4,200		

Temporary roofing is based on 5% in CAT 1.

Details about this model may be obtained at http://www.englink.usace.army.mil
or contact Louisville District staff at DLL-CELRL-GIS@usace.army.mil

Source: US Army Corps of Engineers, All Rights Reserved

Hurricane Irene Roofing Model

Generated By:
Siemsen, LRL 0530 EDT 08/27/2011

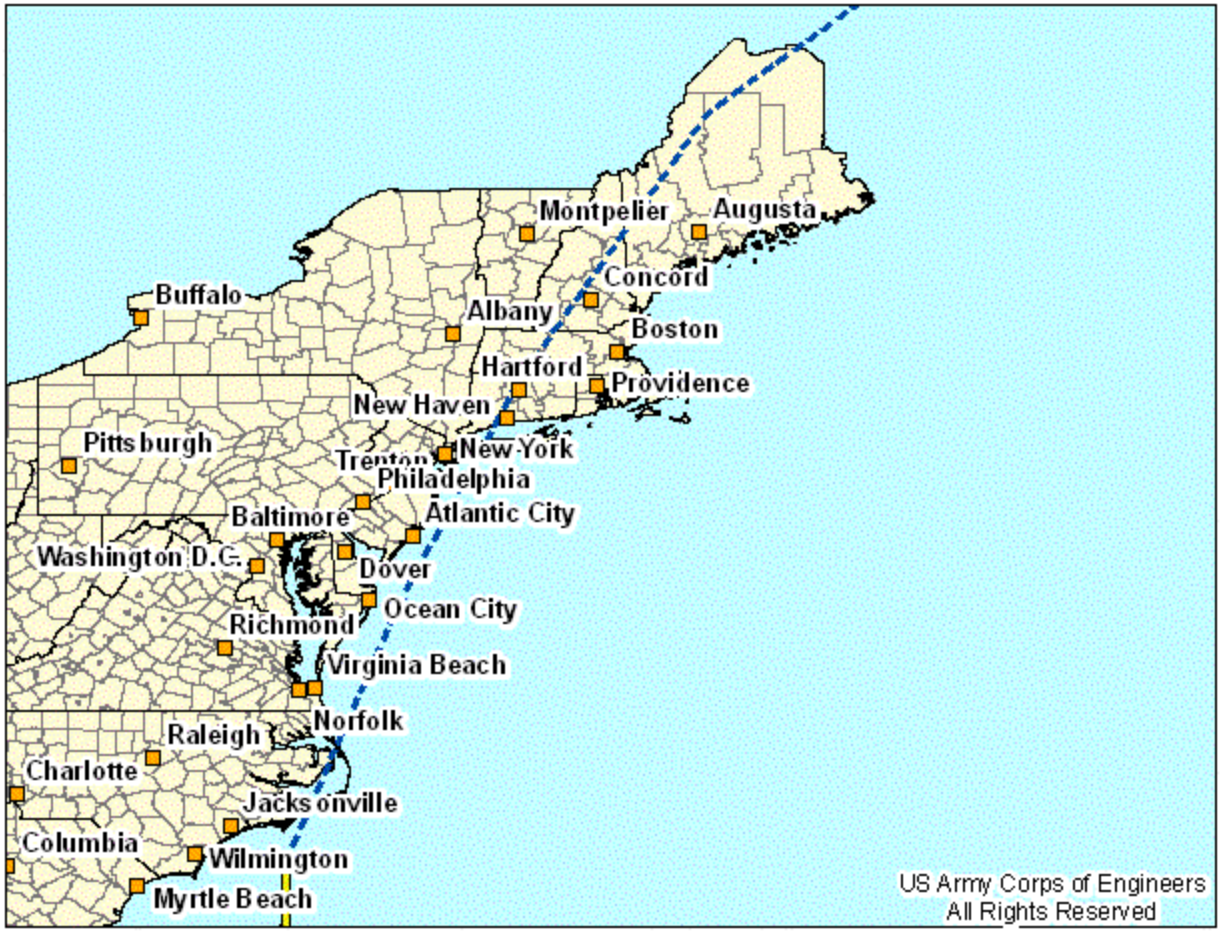
Sources:
HURREVAC
LRL-DEBRIS

US Army Corps of Engineers

Hurricane Irene Temporary Housing Model

Landfall Expected In About 3 Hours

For Planning Purposes Only!



Post Landfall Temporary Housing Model Results

No significant Temporary Housing need expected

Model results per County on following page

This model is based on a Category 1 storm making landfall near Outer Banks, NC.

Forecast Track

Historic Track

Temporary Housing

- < 2,000 units
- 2,000 - 3,999 units
- 4,000 - 5,999 units
- 6,000 - 9,999 units
- > 10,000 units

Information provided on this page displays a Category 1 storm making landfall near Outer Banks, NC. These projections are based on information from the NHC (0500 EDT 08/27/2011) forecast. Temporary housing is based on nothing. The number indicated represents a possible need but not necessarily the scope of mission for USACE.

Details about this model may be obtained at http://www.englink.usace.army.mil or contact Louisville District staff at DLL-CELRL-GIS@usace.army.mil

Hurricane Irene Housing Model	
Generated By: Siemsen, LRL 0530 EDT 08/27/2011	
Sources: HURREVAC LRL-DEBRIS	Page 13 of 27

US Army Corps of Engineers

Hurricane Irene Temporary Housing Model

Landfall Expected In About 3 Hours

For Planning Purposes Only!

State	House Units per State	County	House Units per County

Temporary housing is based on nothing.
The number indicated represents a possible need but not necessarily the scope of mission for USACE.

Details about this model may be obtained at http://www.englink.usace.army.mil
or contact Louisville District staff at DLL-CELRL-GIS@usace.army.mil

Source: US Army Corps of Engineers, All Rights Reserved

Hurricane Irene Housing Model

Generated By:
Siemsen, LRL 0530 EDT 08/27/2011

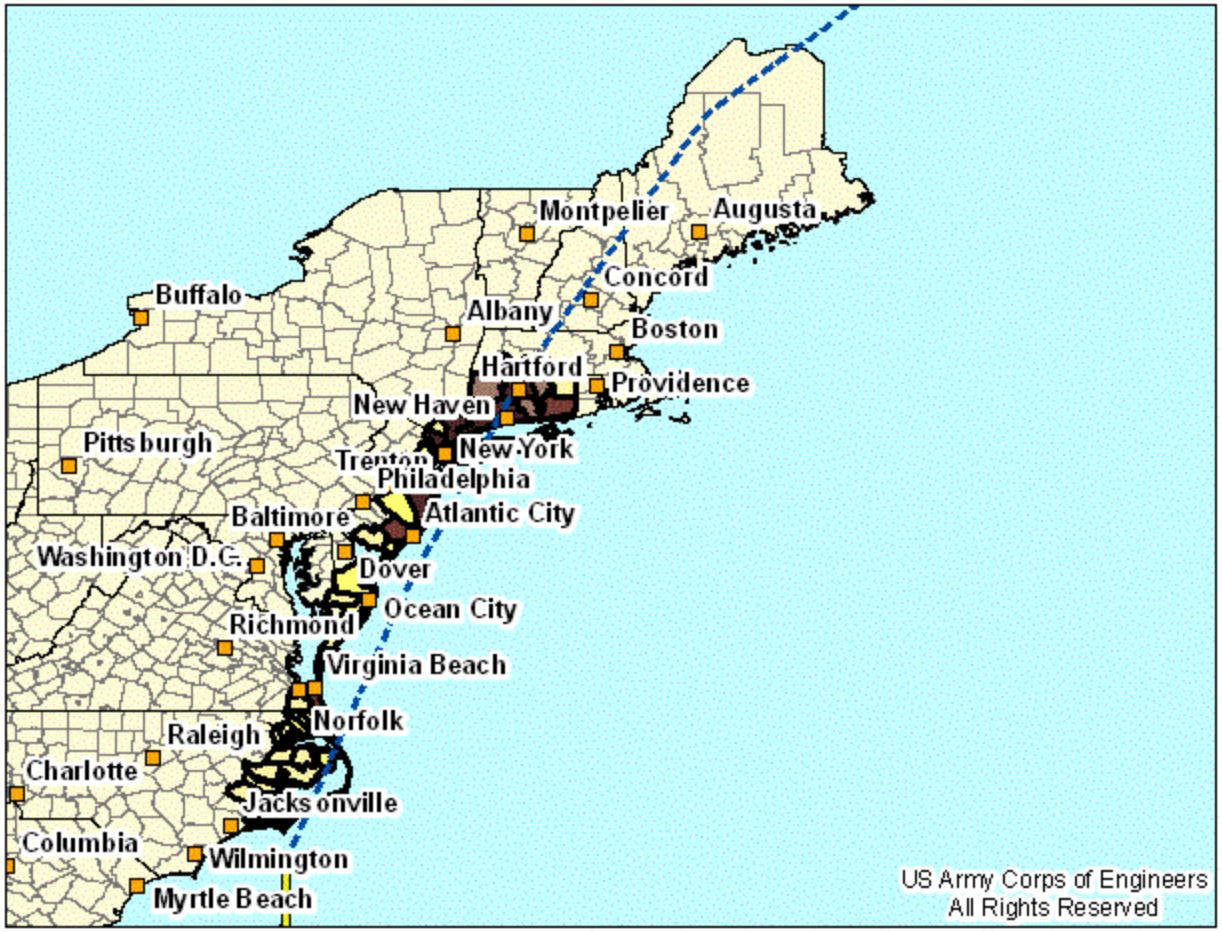
Sources:
HURREVAC
LRL-DEBRIS

US Army Corps of Engineers

Hurricane Irene Population Model

Landfall Expected In About 3 Hours

For Planning Purposes Only!



Post Landfall Population Model Results

New York - 12,068,000
Connecticut - 3,299,000
New Jersey - 2,793,000
Virginia - 270,000
North Carolina - 214,000
Massachusetts - 112,000
Delaware - 73,000
Maryland - 48,000

Model results per County on following page

This model is based on a Category 1 storm making landfall near Outer Banks, NC.

Forecast Track
Historic Track

Population

- < 25,000 persons
- 25,000 - 99,999 persons
- 100,000 - 174,999 persons
- 175,000 - 249,999 persons
- > 250,000 persons

Information provided on this page displays a Category 1 storm making landfall near Outer Banks, NC. These projections are based on information from the NHC (0500 EDT 08/27/2011) forecast. The numbers of persons included in this model output are those that would be included within estimated hurricane force winds (Census 2000 values adjusted to July 2010 values).

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Hurricane Irene Population Model

Generated By:
Siemsen, LRL 0530 EDT 08/27/2011

Sources:
HURREVAC
LRL-DEBRIS

US Army Corps of Engineers

Hurricane Irene Population Model

Landfall Expected In About 3 Hours

For Planning Purposes Only!

State	Population per State	County	Population per County
Connecticut		Fairfield County	902,000
		Hartford County	881,000
		Litchfield County	132,000
		Middlesex County	166,000
		New Haven County	851,000
		New London County	205,000
		Tolland County	138,000
		Windham County	24,000
Connecticut	3,299,000		
Delaware		Sussex County	73,000
Delaware	73,000		
Maryland		Wicomico County	5,000
		Worcester County	43,000
Maryland	48,000		
Massachusetts		Hampden County	112,000
Massachusetts	112,000		
New Jersey		Atlantic County	250,000
		Bergen County	316,000
		Burlington County	38,000
		Cape May County	97,000
		Cumberland County	5,000
		Essex County	40,000
		Hudson County	573,000
		Middlesex County	209,000
		Monmouth County	640,000
		Ocean County	578,000
		Union County	47,000

State	Population per State	County	Population per County
New Jersey	2,793,000		
(continued)			
New York		Bronx County	1,392,000
		Kings County	2,547,000
		Nassau County	1,367,000
		New York County	1,615,000
		Putnam County	5,000
		Queens County	2,355,000
		Richmond County	494,000
		Rockland County	4,000
		Suffolk County	1,519,000
		Westchester County	770,000
New York	12,068,000		
North Carolina		Beaufort County	5,000
		Camden County	7,000
		Carteret County	57,000
		Chowan County	< 1,000
		Craven County	23,000
		Currituck County	25,000
		Dare County	35,000
		Hyde County	6,000
		Pamlico County	9,000
		Pasquotank County	34,000
		Perquimans County	4,000
		Tyrrell County	5,000
		Washington County	4,000
North Carolina	214,000		

The number of persons estimated to be within the hurricane force winds comes from Census 2000 values adjusted to July 2010 values.

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Source: US Army Corps of Engineers, All Rights Reserved

Hurricane Irene Population Model

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Siemsen, LRL 0530 EDT 08/27/2011

Sources:
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LRL-DEBRIS

US Army Corps of Engineers

Hurricane Irene Population Model

Landfall Expected In About 3 Hours

For Planning Purposes Only!

State	Population per State	County	Population per County
Virginia		Accomack County	24,000
		Chesapeake city	9,000
		Northampton County	< 1,000
		Virginia Beach city	237,000
Virginia	270,000		

The number of persons estimated to be within the hurricane force winds comes from Census 2000 values adjusted to July 2010 values.

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Source: US Army Corps of Engineers, All Rights Reserved

Hurricane Irene Population Model

Generated By:
Siemsen, LRL 0530 EDT 08/27/2011

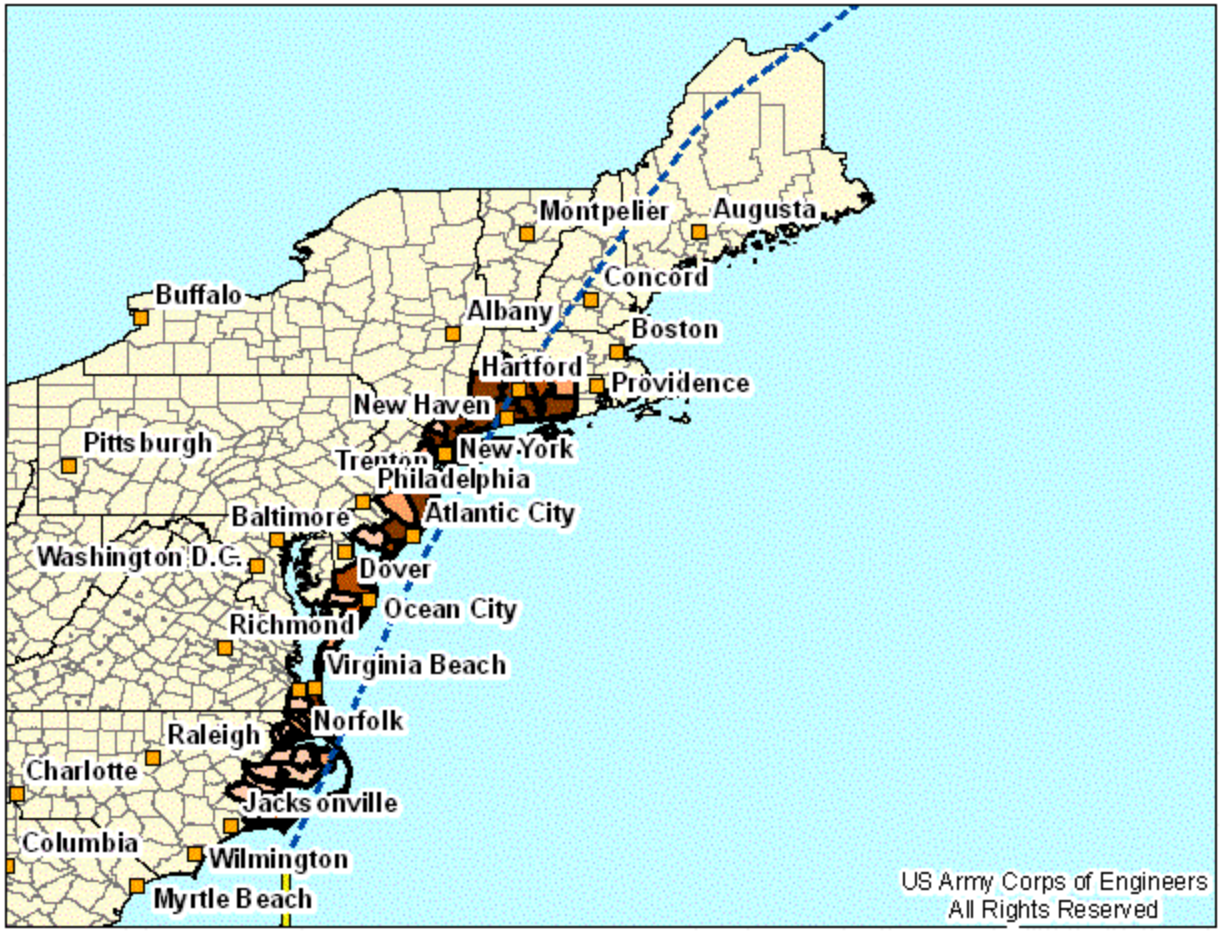
Sources:
HURREVAC
LRL-DEBRIS

US Army Corps of Engineers

Hurricane Irene Households Model

Landfall Expected In About 3 Hours

For Planning Purposes Only!



0 400 800 Miles

Post Landfall Households Model Results

New York - 4,423,000
Connecticut - 1,262,000
New Jersey - 1,047,000
Virginia - 99,000
North Carolina - 86,000
Massachusetts - 44,000
Delaware - 33,000
Maryland - 21,000

Model results per County on following page

This model is based on a Category 1 storm making landfall near Outer Banks, NC.

Forecast Track
Historic Track

Households

- < 7,500 households
- 7,500 - 14,999 households
- 15,000 - 24,999 households
- 25,000 - 49,999 households
- > 50000 households

Information provided on this page displays a Category 1 storm making landfall near Outer Banks, NC. These projections are based on information from the NHC (0500 EDT 08/27/2011) forecast. The numbers of households included in this model output are those that would be included within estimated hurricane force winds (Census 2000 values adjusted to July 2010 values).

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Hurricane Irene Households Model	
Generated By: Siemsen, LRL 0530 EDT 08/27/2011	
Sources: HURREVAC LRL-DEBRIS	Page 18 of 27

US Army Corps of Engineers

Hurricane Irene Households Model

Landfall Expected In About 3 Hours

For Planning Purposes Only!

State	Households per State	County	Households per County
Connecticut		Fairfield County	332,000
		Hartford County	344,000
		Litchfield County	52,000
		Middlesex County	66,000
		New Haven County	330,000
		New London County	79,000
		Tolland County	50,000
		Windham County	9,000
Connecticut	1,262,000		
Delaware		Sussex County	33,000
Delaware	33,000		
Maryland		Wicomico County	2,000
		Worcester County	19,000
Maryland	21,000		
Massachusetts		Hampden County	44,000
Massachusetts	44,000		
New Jersey		Atlantic County	95,000
		Bergen County	121,000
		Burlington County	12,000
		Cape May County	40,000
		Cumberland County	< 1,000
		Essex County	13,000
		Hudson County	218,000
		Middlesex County	72,000
		Monmouth County	234,000
		Ocean County	227,000
		Union County	15,000

State	Households per State	County	Households per County
New Jersey	1,047,000		
(continued)			
New York		Bronx County	485,000
		Kings County	912,000
		Nassau County	459,000
		New York County	776,000
		Putnam County	2,000
		Queens County	827,000
		Richmond County	174,000
		Rockland County	2,000
		Suffolk County	502,000
		Westchester County	284,000
New York	4,423,000		
North Carolina		Beaufort County	2,000
		Camden County	3,000
		Carteret County	24,000
		Chowan County	< 1,000
		Craven County	7,000
		Currituck County	10,000
		Dare County	15,000
		Hyde County	2,000
		Pamlico County	4,000
		Pasquotank County	13,000
		Perquimans County	2,000
		Tyrrell County	2,000
		Washington County	2,000
North Carolina	86,000		

The number of households estimated to be within the hurricane force winds comes from Census 2000 values adjusted to July 2010 values.

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Source: US Army Corps of Engineers, All Rights Reserved

Hurricane Irene Households Model

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Siemsen, LRL 0530 EDT 08/27/2011

Sources:
HURREVAC
LRL-DEBRIS

US Army Corps of Engineers

Hurricane Irene Households Model

Landfall Expected In About 3 Hours

For Planning Purposes Only!

State	Households per State	County	Households per County
Virginia		Accomack County	10,000
		Chesapeake city	3,000
		Northampton County	< 1,000
		Virginia Beach city	86,000
Virginia	99,000		

The number of households estimated to be within the hurricane force winds comes from Census 2000 values adjusted to July 2010 values.

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Source: US Army Corps of Engineers, All Rights Reserved

Hurricane Irene Households Model

Generated By:
Siemsen, LRL 0530 EDT 08/27/2011

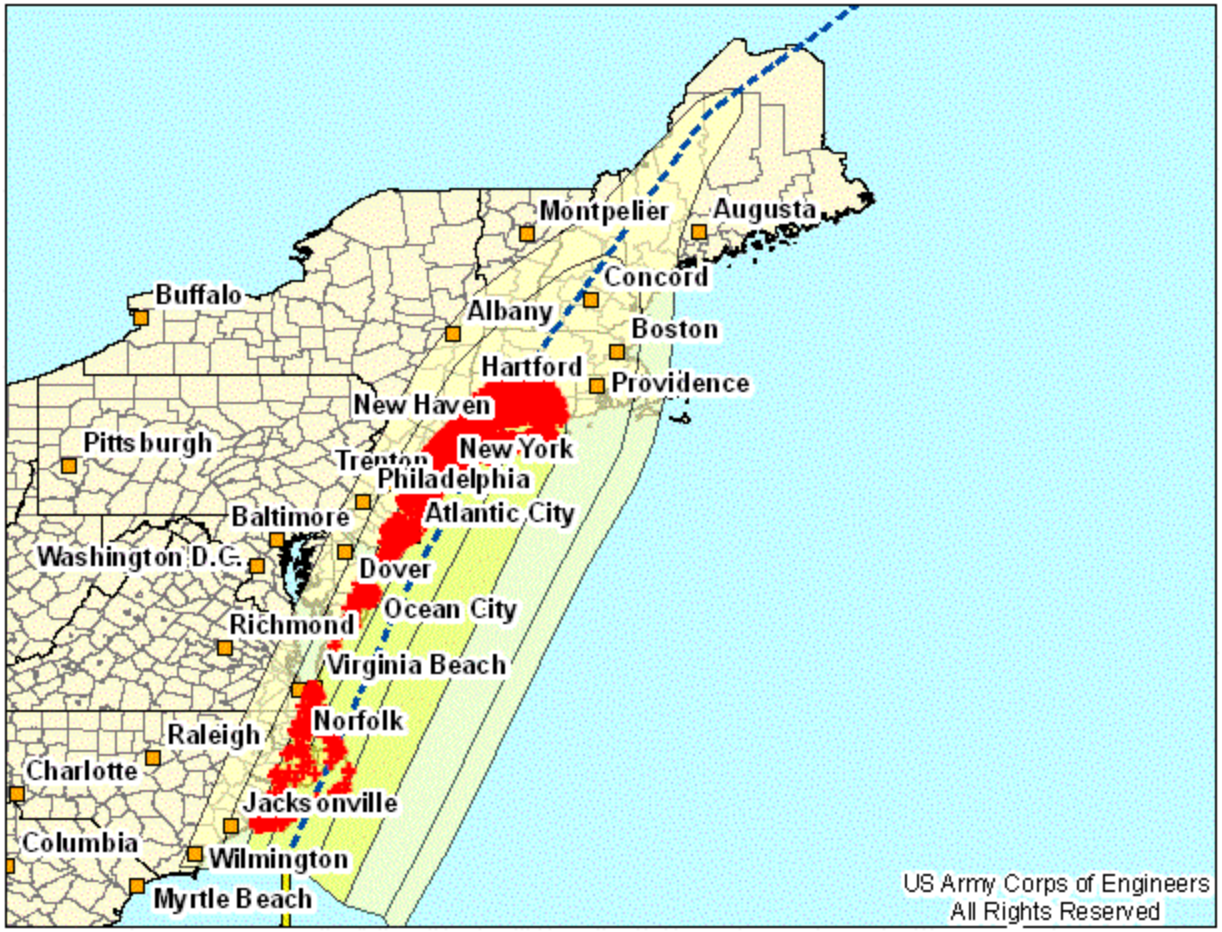
Sources:
HURREVAC
LRL-DEBRIS

US Army Corps of Engineers

Hurricane Irene Fire Stations

Landfall Expected In About 3 Hours

For Planning Purposes Only!



Most Probable Landfall Fire Stations Inside Hurricane Force Winds

New York - 712
Connecticut - 508
New Jersey - 429
North Carolina - 107
Virginia - 27
Maryland - 19
Delaware - 18
Massachusetts - 7

Model results per County on following page

This model is based on a Category 1 storm making landfall near Outer Banks, NC.

+ Fire Stations
Forecast Track
Historic Track

Information provided on this page displays a Category 1 storm making landfall near Outer Banks, NC. These projections are based on information from the NHC (0500 EDT 08/27/2011) forecast.

The number of fire stations included in this output are those that would be included within estimated hurricane force winds (data source: HSIP Gold 2011).

Details about this model may be obtained at http://www.englink.usace.army.mil or contact Louisville District staff at DLL-CELRL-GIS@usace.army.mil

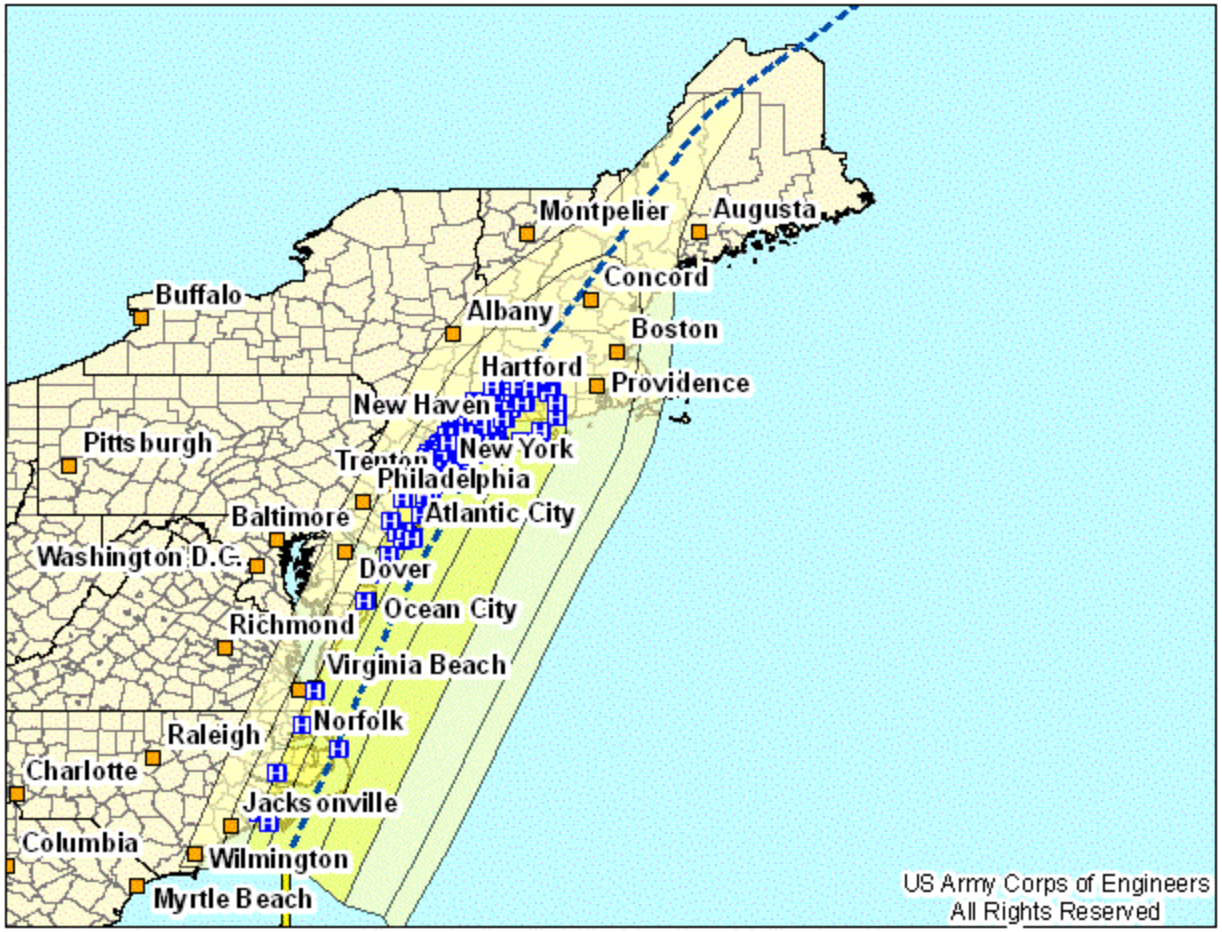
Hurricane Irene Fire Stations	
Generated By: Siemsen, LRL 0530 EDT 08/27/2011	
Sources: HURREVAC LRL-DEBRIS	Page 21 of 27

US Army Corps of Engineers

Hurricane Irene Hospitals

Landfall Expected In About 3 Hours

For Planning Purposes Only!



Most Probable Landfall Hospitals Inside Hurricane Force Winds

New York - 102
Connecticut - 43
New Jersey - 41
North Carolina - 5
Virginia - 2
Maryland - 1
Delaware - 1

Model results per County on following page

This model is based on a Category 1 storm making landfall near Outer Banks, NC.

Hospitals
Forecast Track
Historic Track

Information provided on this page displays a Category 1 storm making landfall near Outer Banks, NC. These projections are based on information from the NHC (0500 EDT 08/27/2011) forecast.

The number of hospitals included in this output are those that would be included within estimated hurricane force winds (data source: HSIP Gold 2011).

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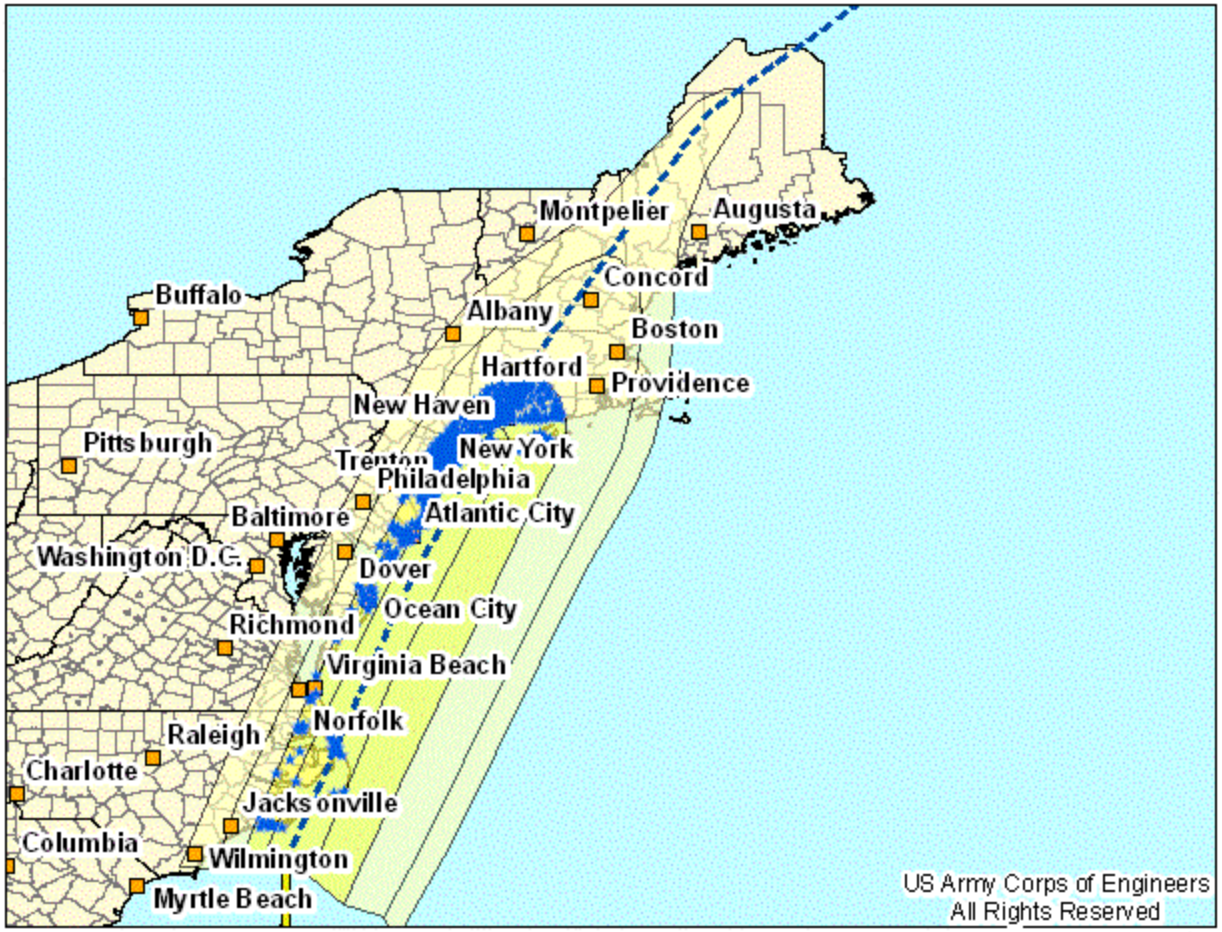
Hurricane Irene Hospitals	
Generated By: Siemsen, LRL 0530 EDT 08/27/2011	
Sources: HURREVAC LRL-DEBRIS	

Hurricane Irene Law Enforcement

Landfall Expected In About **3** Hours

For Planning Purposes Only!



Most Probable Landfall Law Enforcement Inside Hurricane Force Winds

New York - 374
New Jersey - 189
Connecticut - 187
North Carolina - 48
Virginia - 12
Maryland - 12
Delaware - 12
Massachusetts - 7

Model results per County on following page

This model is based on a Category 1 storm making landfall near Outer Banks, NC.

Law Enforcement
Forecast Track
Historic Track

Information provided on this page displays a Category 1 storm making landfall near Outer Banks, NC. These projections are based on information from the NHC (0500 EDT 08/27/2011) forecast.

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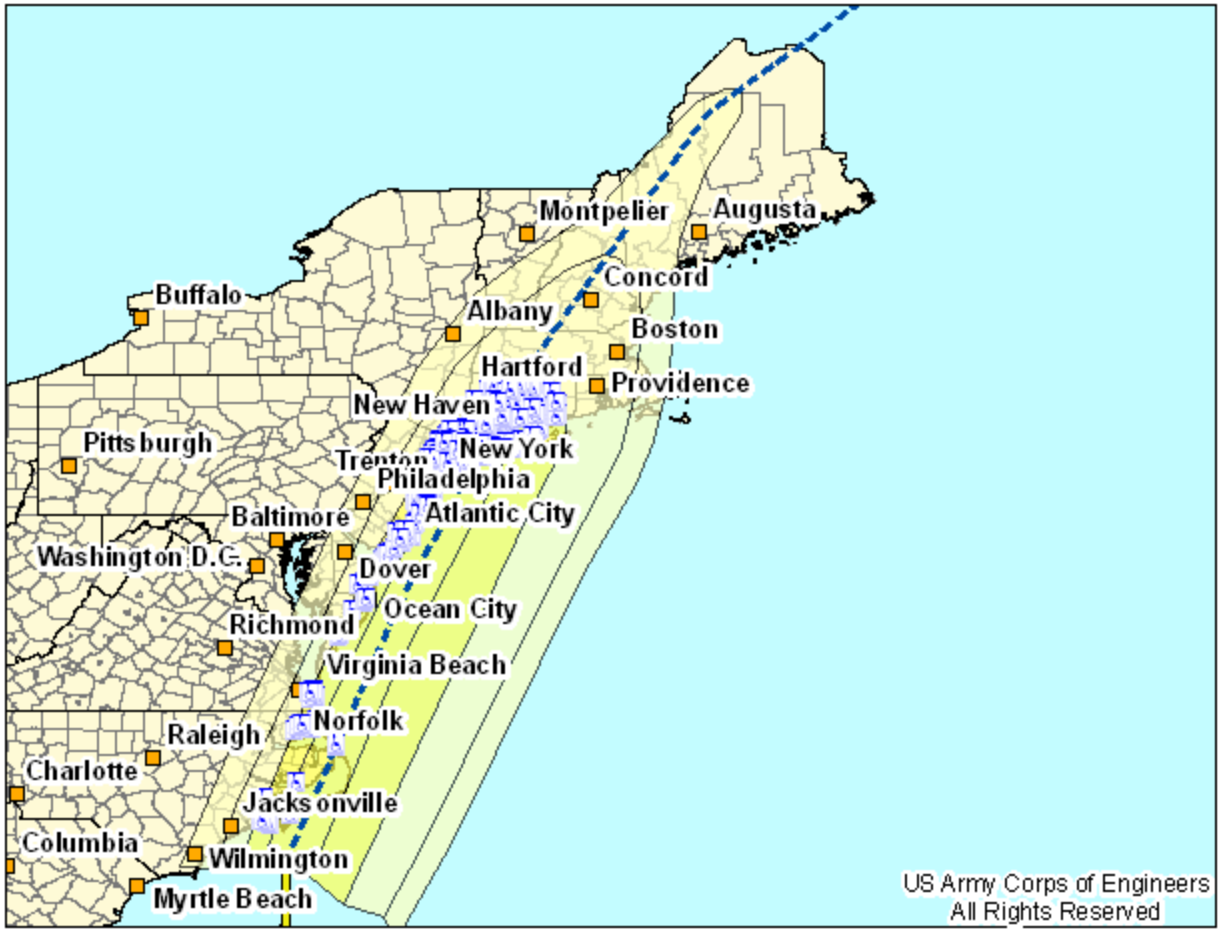
Hurricane Irene Law Enforcement	
Generated By: Siemsen, LRL 0530 EDT 08/27/2011	
Sources: HURREVAC LRL-DEBRIS	

Hurricane Irene Nursing Homes

Landfall Expected In About 3 Hours

For Planning Purposes Only!



Most Probable Landfall Nursing Homes Inside Hurricane Force Winds

New York - 421
Connecticut - 390
New Jersey - 162
North Carolina - 21
Massachusetts - 17
Virginia - 16
Maryland - 6
Delaware - 6

Model results per County on following page

This model is based on a Category 1 storm making landfall near Outer Banks, NC.

Nursing Homes
Forecast Track
Historic Track

Information provided on this page displays a Category 1 storm making landfall near Outer Banks, NC. These projections are based on information from the NHC (0500 EDT 08/27/2011) forecast.

The number of nursing homes included in this output are those that would be included within estimated hurricane force winds (data source: HSIP Gold 2011).

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Hurricane Irene Nursing Homes	
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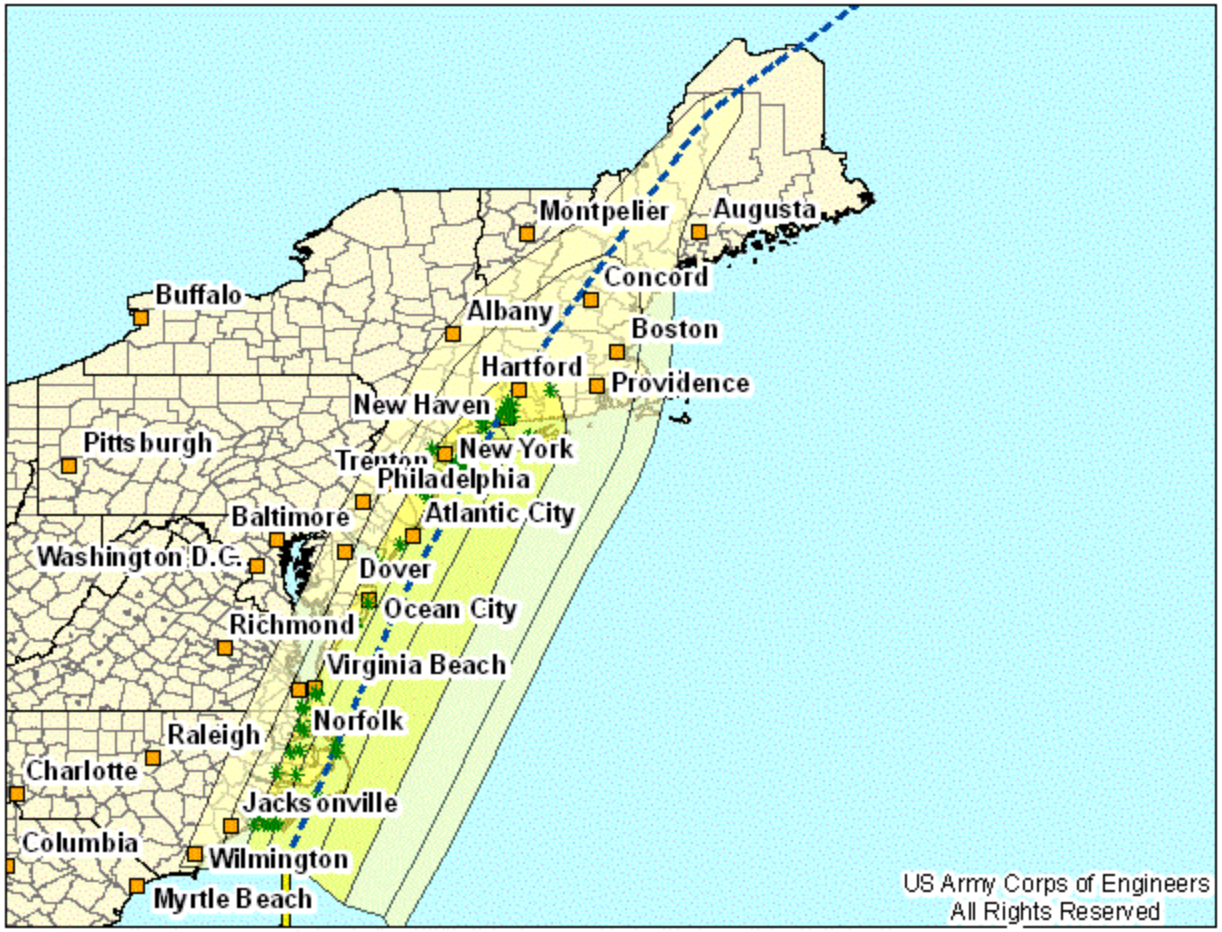
Sources: HURREVAC LRL-DEBRIS	Page 24 of 27

US Army Corps of Engineers

Hurricane Irene Potable Water

Landfall Expected In About 3 Hours

For Planning Purposes Only!



Most Probable Landfall Potable Water Inside Hurricane Force Winds

North Carolina - 19
New York - 12
Connecticut - 11
New Jersey - 8
Virginia - 7
Maryland - 1

Model results per County on following page

This model is based on a Category 1 storm making landfall near Outer Banks, NC.

Potable Water
Forecast Track
Historic Track

Information provided on this page displays a Category 1 storm making landfall near Outer Banks, NC. These projections are based on information from the NHC (0500 EDT 08/27/2011) forecast.

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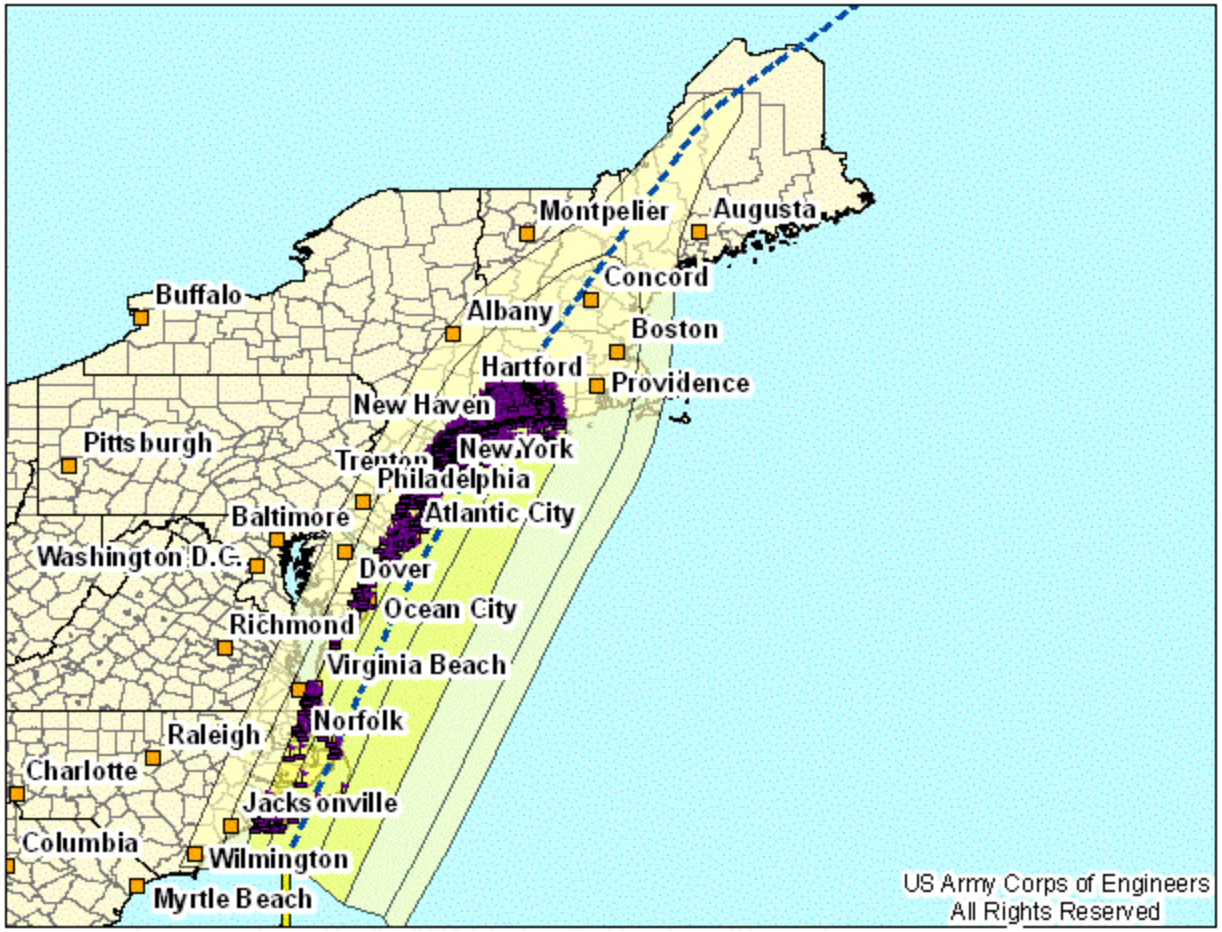
Hurricane Irene Potable Water	
Generated By: Siemsen, LRL 0530 EDT 08/27/2011	
Sources: HURREVAC LRL-DEBRIS	Page 25 of 27

US Army Corps of Engineers

Hurricane Irene Schools

Landfall Expected In About 3 Hours

For Planning Purposes Only!



Most Probable Landfall Schools Inside Hurricane Force Winds

New York - 2,420
Connecticut - 1,043
New Jersey - 687
North Carolina - 76
Virginia - 67
Massachusetts - 32
Delaware - 17
Maryland - 12

Model results per County on following page

This model is based on a Category 1 storm making landfall near Outer Banks, NC.

Schools
Forecast Track
Historic Track

Information provided on this page displays a Category 1 storm making landfall near Outer Banks, NC. These projections are based on information from the NHC (0500 EDT 08/27/2011) forecast.

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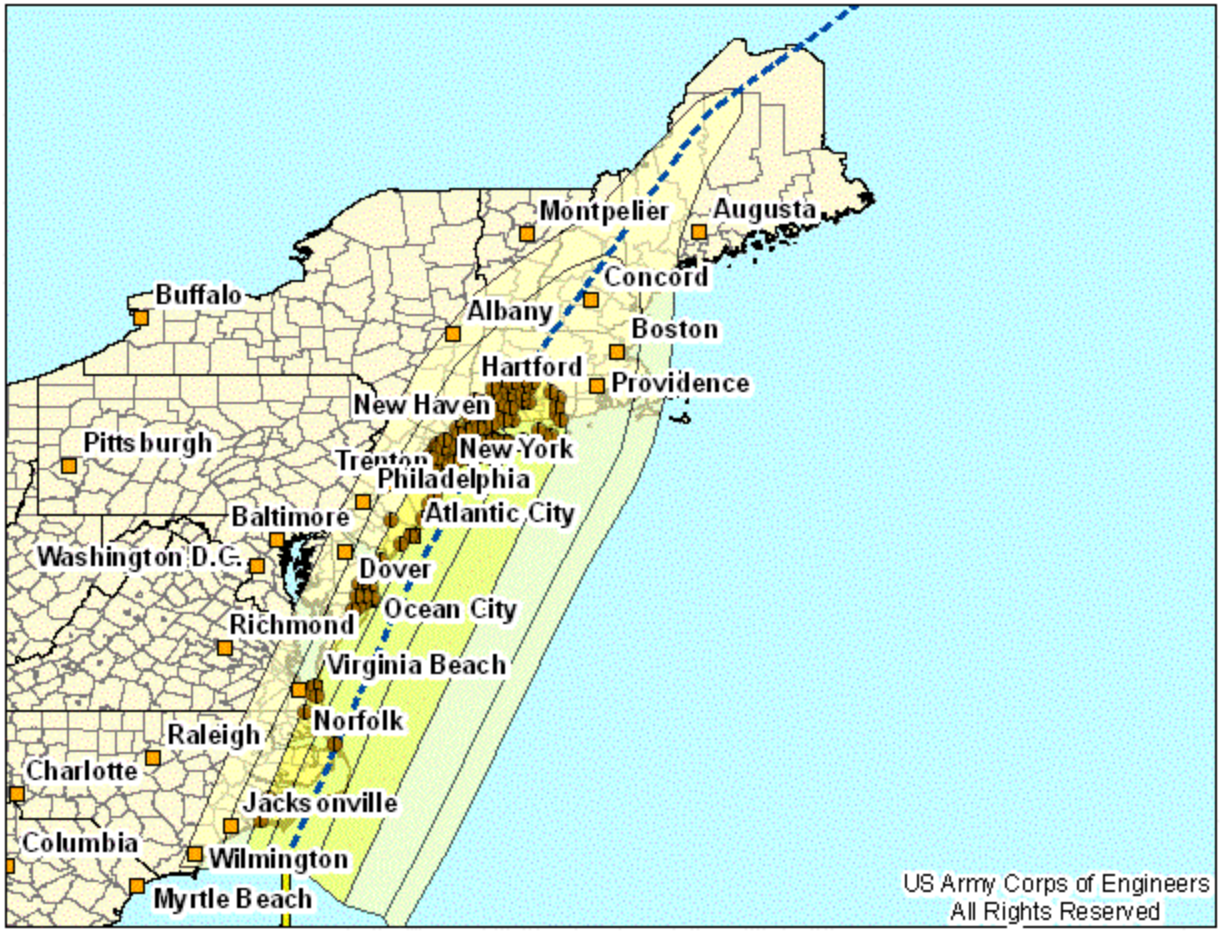
Hurricane Irene Schools	
Generated By: Siemsen, LRL 0530 EDT 08/27/2011	
Sources: HURREVAC LRL-DEBRIS	

US Army Corps of Engineers

Hurricane Irene Sewage Treatment Plants

Landfall Expected In About 3 Hours

For Planning Purposes Only!



Most Probable Landfall Sewage Treatment Plants Inside Hurricane Force Winds

Connecticut - 68
New York - 65
New Jersey - 44
Maryland - 8
North Carolina - 5
Delaware - 5
Virginia - 3
Massachusetts - 1

Model results per County on following page

This model is based on a Category 1 storm making landfall near Outer Banks, NC.

Sewage Treatment Plants
Forecast Track
Historic Track

Information provided on this page displays a Category 1 storm making landfall near Outer Banks, NC. These projections are based on information from the NHC (0500 EDT 08/27/2011) forecast.

The number of sewage treatment plants included in this output are those that would be included within estimated hurricane force winds (data source: HSIP Gold 2011).

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Hurricane Irene Sewage Treatment Plants	
Generated By: Siemsen, LRL 0530 EDT 08/27/2011	
Sources: HURREVAC LRL-DEBRIS	Page 27 of 27